

Applicant: James A. Proctor, Jr.
Application No.: 10/767,843

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1 – 20 are currently pending in this application. Claim 21 has been canceled without prejudice. Claims 1, 5, 11 and 15 have been amended to clarify Applicant's invention. Applicant submits that no new matter has been introduced into the application by these amendments.

Claim Objections

The Examiner has objected to claim 5 due to informalities. Applicant has amended claim 5 and the withdrawal of the objection to claim 5 is respectfully requested.

Claim Rejections - 35 USC §112

The Examiner has rejected claims 1, 11, 15 and 21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claims 1, 11 and 15 to overcome the Examiner's rejection and the withdrawal of the rejection to claims 1, 11 and 15 is respectfully requested.

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Claim Rejections - 35 USC §103

Claims 1 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2007/0076583 ("Hadad").

The present invention is a method and apparatus for controlling timing of the reverse link signal from a subscriber unit. A receiver receives a plurality of reverse link signals each including a common code and unique orthogonal code. A correlator coupled to the receiver associates a metric with each of the received reverse link signals and a selector selects the received reverse link signal associated with a best metric. A gross timing offset is determined by a timing controller for the selected reverse link signal to align the selected reverse link signal with reverse link signals from other subscriber units using the common code with a common phase.

Hadad does not disclose the system as presently claimed. Hadad discloses a device for achieving a bi-directional channel including a transmitter in a subscriber unit for transmitting signals that are orthogonal to signals received from the base station and are also orthogonal signals from other subscriber units, a receiver in the base station for receiving and processing together signals from a plurality of subscriber units and a control over allocating to each subscriber unit several carriers that are separated from each other. Hadad, though, does not suggest or teach at least a correlator associating a metric to each of the received reversed link

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signals and a selector coupled to the correlator that selects the received reverse link signal associated with a best metric. In fact, the Examiner explicitly admits this in stating, "Hadad fails to explicitly disclose a selector coupled to the correlator."

The Examiner has cited page 11, paragraphs [0253] through [0256] as disclosing the correlator coupled to the receiver that associates a metric with each of the received reverse link signals. Upon review of this section of Hadad, there is nothing that suggests or teaches such a correlator. The only element disclosed in this portion of Hadad is a common Fast Fourier Transform (FFT), related only to the time delay and phase shift of the carrier ropes for each user. In the Hadad system, there is nothing that suggests a correlator coupled to the receiver that associates a metric with each of the received reverse link signals. Further, there is nothing that suggests a selector coupled to the correlator that selects the received reverse link signal associated with a best metric.

The Examiner has inappropriately used Applicants claimed invention to find that it is well known in the art for selectors to couple correlators in order to select a signal after a correlation process is performed on the received signals. The Examiner, though, cites no references to support such a finding, nor is there a basis for such a finding. Again, the selector selects the received reverse link signal having the best metric, which metrics were determined by the correlator. The Hadad system does not utilize a metric, nor does it suggest the use of one. Hadad

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does not suggest or teach a correlator, nor does it suggest or teach a selector selecting a received reverse link signal having a best metric.

Moreover, the Hadad system specifically teaches away from the present invention. On page 3, paragraph [0060], it reads:

This method and system achieved better performance with respect to prior art CDMA. CDMA is based on orthogonal codes being allocated to the various users. The codes, however, are orthogonal only if they are received at the same time. In prior art systems, the various signals may be received with different relative time delay, so they are no more orthogonal as intended.

As clearly stated above, a receiver in a base station receives a plurality of reverse link signals, each of the signals, including a common code and unique orthogonal code.

Accordingly, Hadad does not render the invention as presently claimed obvious. Claims 2 – 10 and 12 – 20 are dependent upon claims 1 and 11, which Applicant believes are allowable over the cited prior art of record for the same reasons provided above. Based on the arguments presented above, withdrawal of the §103 rejection of claims 1 – 20 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a

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telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 20, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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